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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/029,539
	Filing Date	12/20/2001
	First Named Inventor	Shaffer, et al.
	Art Unit	2654
	Examiner Name	V. Paul Harper
Total Number of Pages in This Submission	Attorney Docket Number	112171-001 (TARINFO.015CP1)

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): return receipt postcard
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Firm Or Individual name	Richard E. Campbell, Reg. No. 34,790 Procopio, Cory, Hargreaves & Savitch LLP
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Date	9/30/04

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**FEE TRANSMITTAL**  
for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

**Complete If Known**

Application Number	10/029,539
Filing Date	12/20/2004
First Named Inventor	Shaffer, et al.
Examiner Name	V. Paul Harper
Art Unit	2654
Attorney Docket No.	112171-001 (TARINFO.015CP1)

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$330)

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☐ Credit card ☐ Money ☐ other ☐ None  
☒ Deposit Account

Deposit Account Number

50-2075

Deposit Account Name  
Procopio, Cory, Hargreaves & Savitch LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
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**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$0)

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
-20**			0
-3**			0
Multiple Dependent			0

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 over original patent

SUBTOTAL (2) (\$0)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	330
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	77	281C	385	Request for Continued Examination (RCE)	
1802	90	1802	900	Request for expedited examination of a design application	

Other fee (Specify) \_\_\_\_\_

\* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$330)

**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	Richard E. Campbell	Registration No. (Attorney/Agent)	34,790	Telephone	619-238-1900
Signature	<i>R. E. Campbell</i>	Date	9/30/04		

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TARINFO.015CPI

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Shaffer, et al.  
Appl. No. : 10/029,539  
Filed : December 20, 2001  
For : SYSTEM AND METHOD FOR  
CAPTURING, MATCHING AND  
LINKING INFORMATION IN A  
GLOBAL COMMUNICATIONS  
NETWORK  
Examiner : V. Paul Harper  
Group Art Unit : 2654

CERTIFICATE OF MAILING

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September 30, 2004

(Date)

Richard E. Campbell, Reg. No. 34,790

APPEAL BRIEF (37 C.F.R. § 1.192)

Mail Stop Appeal Brief - Patents  
US Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from at least the second rejection of Claims 1-6 and 11-22 contained in the Office Action mailed June 10, 2004 in the above-referenced application.

(1) **Real Party in Interest**

Murex Securities, Ltd., assignee of the present application, is the real party in interest.

(2) **Related Appeals and Interferences**

There are no related appeals and/or interferences currently pending.

(3) **Status of Claims**

Claims 1-6 and 8-22 are pending in the case. Claims 1-6 and 11-22 have been rejected and Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-6 and 8-22 are appealed herein.

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The application was filed with Claims 1-22. In an amendment dated December 18, 2003, Claims 1, 8, 20 and 21 were amended. In an amendment dated April 13, 2004, Claims 1 and 21 were amended, and Claim 7 was canceled. No further claim amendments have been made.

**(4) Status of Amendments**

All amendments have been entered.

**(5) Summary of Invention**

One embodiment of the invention relates to a method of recognizing speech in a communication network based on captured information related to the speaker. Applicant's claimed invention allows for access to various data files having information relating to the speaker via a linkage key and a captured identifier. This provides tremendous flexibility in the type of potential matching words that can be obtained. For example, street names, first names and apartment numbers can be obtained depending on the query to which the speaker is responding. This allows the system to have a small and highly accurate list of expected answers. The expected answers can then be converted into a grammar for comparison to a captured vocal expression.

The method begins by capturing an identifier related to a speaker which has been provided over a communication network. One example of a captured identifier is a telephone number (page 23, lines 24-25). A linkage key is then determined using the identifier. Examples of how linkage keys are determined using identifiers are described, for example, on page 10, line 27 – page 11, line 15. One specific example of a linkage key is the United States Postal Service Delivery Point Code (DPC). (Page 10, line 24). A subset of records is selected from a plurality of records based on the linkage key. For example, a telephone number can be used to determine a linkage key which can be a DPC. (Page 10, line 30). The DPC linkage key can be used to access a number of databases that are indexed by DPC. (See, for example, page 37, line 22 – page 38, line 4 which describes a number of databases which can be accessed using a DPC.) Those databases contain household information such as the names of individuals associated with that household, estimated household income and so forth. (Page 37, lines 24-28.) The linkage key allows records in the database to be selected that are associated with the address associated with the telephone number.

Next, a vocal expression of the speaker is captured. For example, the vocal expression of the speaker can be captured by an interactive voice response system 600. (Page 24, lines 28-30

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and Figure 1.) A grammar of potential matching words is then obtained based upon the subset of records. (Page 23, lines 8-13 and lines 28-31). In the example we have been describing, the potential matching words are the names of the individuals associated with the household. A grammar for the specific names of the individuals associated with the household can then be obtained, for example from a name grammar database as is described on page 25, lines 26-31. Information related to the vocal expression based on comparing the grammar with the captured vocal expression is then determined. In other words, the captured vocal expression is analyzed in view of the grammar to determine whether the vocal expression matches one of the potential matching words. (See, for example, page 23, lines 3-5, lines 28 – page 24, line 1, and page 25, lines 1-8.)

**(6) Issues**

A. Whether Claims 1, 6, 12, 14, 16 and 18-22 are patentable under 35 U.S.C. § 103(a) over Smith (U.S. Patent No. 5,054,082) in view of Kanevsky (U.S. Patent No. 5,897,616) and Shaffer (U.S. Patent No. 5,848,131).

B. Whether Claims 2-5, 11, 13, 15 and 17 are patentable under 35 U.S.C. § 103(a) over Smith in view of Kanevsky, Shaffer and what is asserted to be “well known prior art”.

**(7) Grouping of Claims**

- a. Claims 1, 6, 12, 16-20 stand or fall together.
- b. Claim 14 stands or falls alone.
- c. Claim 2 stands or falls alone.
- d. Claims 3 and 15 stand or fall together.
- e. Claims 4 and 5 stand or fall together.
- f. Claims 8, 9 and 10 have been indicated as containing allowable subject matter by the Examiner and therefore stand together.
- g. Claims 21 and 22 stand or fall together.

**(8) Argument**

In general, in the rejections of the claims, the Examiner has repeatedly made two mistakes. First, the Examiner has attempted to improperly combine disparate elements and even mere phrases from a group of references to create a hypothetical system which the Examiner asserts renders the claimed invention obvious. In addition, to accept the Examiner’s position requires ignoring the rule that if the “proposed modification would render the prior art invention

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being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP 2143.01 citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The modifications proposed by the Examiner also change the principle of operation of the prior art invention being modified, and therefore “the teachings of the references are not sufficient to render the claims *prima facie* obvious.” See, MPEP 2143.01 citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Second, the Examiner has failed to identify or provide teachings in the references for each of the claim elements. “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.03 citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner has glossed over certain of the words in the claims in order to make the references line up with the claim, when in fact they do not. Perhaps that is because the system created by the Examiner as the basis of the section 103 rejection is so convoluted and contrary that it is very difficult and sometimes impossible to understand how it might operate and how its disparate parts might interact.

Each of the specific rejections appealed herein are addressed in detail below.

I. Claims 1, 6, 12, 14, 16 and 18-22 Are Patentable Under 35 U.S.C. § 103(a) over Smith in View of Kanevsky and Shaffer.

A. Claims 1, 6, 12, 14, 16, and 18-22

The rejection of Claims 1, 6, 12, 14, 16 and 18-22 under Section 103 is improper and should be reversed because the Examiner has failed to provide a *prima facie* showing of obviousness. Specifically, the references cannot properly be combined and the combination of references does not teach or suggest all of the claim limitations. Though the following arguments are specifically addressed to claim 1, they apply with equal force to each of the rejected claims.

1. The references cannot properly be combined

The references cannot properly be combined because the Examiner’s proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose and the modifications proposed by the Examiner change the principle of operation of the prior art invention being modified. Therefore “the teachings of the references are not sufficient to render the claims *prima facie* obvious.” See, MPEP 2143.01 citing *In re Ratti*.

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(a) The Examiner's proposed modifications render the prior art invention unsatisfactory for its intended purpose

In the system of Smith, a user first creates a personal codebook which is stored at one or more central locations. (Smith, column 2, lines 60-67.) A codebook is voice recognition information for a specific individual. (See, Smith, column 1, lines 27-36.) Before a user can operate a subscriber unit (police radio), his codebook must be transferred (downloaded) from the central repository to the subscriber unit. (Smith, column 3, lines 4-9.) The individual codebook is downloaded to the subscriber unit in response to a message transmitted from the subscriber unit to the central repository identifying and requesting the particular codebook. (Smith, column 3, lines 6-13.) As the basis of the rejection, the Examiner specifically points to Smith's use of the code book identification code. The subscriber unit then uses the codebook to recognize specific commands of that user. (Smith, column 3, lines 50-53.) According to Smith, "In this way, the communication device may be rapidly reprogrammed to accommodate changing operators." (Smith, Summary of the Invention.)

The Examiner proposes to "modify Smith in view of Kanevsky by specifically using a linkage key, as taught by Shaffer, for the purpose standardizing [sic] the access to information across a distributed database."

Shaffer is concerned with automated telephone call routing based upon service areas which encompass the location of the telephone from which a caller is calling. (Shaffer, column 1, lines 22-32.) Shaffer describes his linkage key "as a direct and/or translator linkage mechanism between the telephone number and spatial, geographic and client service location databases. . . that is termed herein, the spatial key." (Shaffer, column 6, lines 62-65.) "The spatial key is a single number that identifies a specific geographically defined area, line or point that is defined by a set of coordinates." (Shaffer, column 12, lines 16-19.)

Converting the identification code of Smith, which identifies the user's codebook, into a linkage key which "identifies a specific geographically defined area, line or point" renders Smith unsatisfactory for its intended purpose. Smith does not include a "distributed database." Smith includes a central repository of user code books which are simply and easily downloaded in response to the identification code of a user. Converting the identification code to a linkage key which identifies a geographic point would prevent the system described in Smith from being able to directly access the user's codebook.

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The Examiner has provided no explanation as to how such a linkage key can identify a user's codebook. In fact, Shaffer teaches that the spatial key does not even work for mobile telephones. (See, Shaffer, column 14, lines 13.) "Because the mobile telephone user . . . is not associated with a fixed location, the process 108 moves to a state 128 for handling non-routable exceptions." Therefore, the linkage key of Shaffer would not work with the hand units (police radios) of Smith and could not identify a user's codebook. Therefore, the combination proposed by the Examiner renders Smith unsatisfactory for its intended purpose, i.e., downloading a user's code book to a specific hand set so that handset can recognize voice commands from that user. (See, Smith, summary of the invention.)

(b) The modifications proposed by the Examiner also change the principle of operation of the prior art invention being modified.

With regard to the rejection of claim 1, the Examiner summarizes Kanevsky as teaching "methods for speaker verification, identification, and classification employing non-acoustic and/or acoustic models where through the process of identification access is allowed into database systems." The Examiner then concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith by specifically allowing a user access to a data base system, as taught by Kanevsky, for the purpose of accessing desired services." (6/12/04 Office Action, page 3, emphasis added.) Therefore, the Examiner is proposing that Kanevsky provides a motivation to modify Smith to allow the "accessing of desired services." The Examiner goes on to argue that Shaffer teaches the use of a linkage key and therefore it would have been obvious to "modify Smith in view of Kanevsky by specifically using a linkage key, as taught by Shaffer, for the purpose standardizing [sic] the access to information across a distributed database."

The system of Smith operates by a user sending a request message to the central repository, the message identifying the user's code book to be sent to the handset. The central repository responds by downloading the user's code book to the handset. The handset then uses that code book to recognize voice commands. The Examiner's proposed modification replaces the code book request message with some sort of request for "desired services" or to access "information across a distributed database" using a linkage key. Neither a request for desired services or accessing information across a distributed database is likely to result in the user's code book being downloaded. With the Examiner's proposed modification, the system of Smith



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no longer downloads the user's code book. That modification is a change in the principle of operation of Smith.

2. The references do not describe all of the claim limitations

In the Office Action in connection with the rejection of Claim 1, the Examiner asserts that Smith teaches each of the limitations of Claim 1 except for the limitation of "determining a linkage key using the identifier." That is incorrect. Smith also does not teach the claimed elements of (a) "selecting a subset of records... based on the linkage key" and (b) "obtaining a grammar... based upon the subset of records."

(a) Smith does not teach "selecting a subset of records . . . based upon the linkage key."

In the office action, the Examiner asserted that the claimed element of "selecting a subset of records from a plurality of records based upon the linkage key" was disclosed by Smith's identifying and requesting a particular codebook from the codebook library (Col. 3, lines 11-13). The Examiner has already correctly admitted that Smith does not disclose any use of a linkage key. The Examiner may not ignore that this "selecting a subset of records" claim element also includes the linkage key. However, the Examiner did not point to or rely upon the other references of record for teaching or suggesting this limitation in the rejection.

In addition, three lines earlier in the office action, the Examiner asserted that "entering an identification code that is transmitted to a central repository (Col. 3., lines 15-18)" corresponds to the claimed element of "capturing an identifier related to a speaker provided over a communication network." However, in Smith "entering an identification code that is transmitted to a central repository" is the same thing as identifying and requesting a particular codebook from the codebook library. In Smith, "[e]ntering an identification code . . ." is merely a specific example of "identifying and requesting a particular code book." (See, Smith, Col. 3, lines 12-18.) Therefore, the Examiner effectively asserts that the same element in Smith correlates to both "capturing an identifier related to a speaker provided over a communication network." and "selecting a subset of records from a plurality of records based upon the linkage key." The Examiner completely glosses over the fact that the first claimed element utilizes "an identifier related to a speaker" while the second identified claim element selects a subset of records based on the linkage key.

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(b) Smith does not teach “obtaining a grammar . . . based upon the subset of records.”

The Examiner asserts that “transmitting a codebook to the subscriber based on the training of words to be recognized for an individual (Col. 2, lines 53-67, Col. 3, lines 15-40)” corresponds to the claim limitation of “obtaining a grammar of potential matching words based upon the subset of records.” However, the Examiner earlier pointed to the codebook of Smith as corresponding to the claim element of “subset of records”. In this part of the rejection of the same claim, the Examiner now asserts that the codebook corresponds to the claimed “grammar.” According to the logic of the rejection, the claim element would be rewritten as “obtaining a codebook of potential matching words based upon the codebook.” Again, the Examiner is pointing to a single element of Smith, in this case “a particular codebook”, and correlating it to two different elements, i.e., “a grammar of potential matching words” and “a subset of records from a plurality of records” of the claims at different times.

Smith merely downloads the selected codebook. Simply transmitting a code book that was selected by a user-specific identification code does not disclose or suggest “obtaining a grammar of potential matching words based upon the subset of records.” An embodiment of the method of claim 1 can use a linkage key to obtain data related to a caller (a subset of records such as names of residents of the household associated with the calling telephone) and then obtain a grammar of potential matching words based upon that data. For example, a grammar associated with each of those names can be obtained from a name grammar database. The system described in Smith cannot do such a thing and contains no suggestion to create such a method.

**B. Claim 14**

In addition to the reasons for patentability given above in connection with Claim 1, Claim 14 is separately patentable for the following reasons.

Claim 14 includes the further limitation of “wherein the identifier comprises location information.” In rejecting claim 14, the Examiner admitted that Smith does not teach this limitation and went on to state that “this concept is well known.” The Examiner further stated: “Therefore, it would have been obvious to one having ordinary skill . . . to modify Smith in view of Kanevsky and Shaffer by specifically using address information, as taught by Kanevsky, to

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more logically access geographical information.” Such a modification of Smith would render it unsatisfactory for its intended purpose.

Modifying Smith to respond to location information as a way of obtaining a linkage key which is then used to select a subset of records which are then used to obtain a potential grammar (claim 14) destroys the function of Smith. The purpose of Smith is to download the codebook of the current user. Capturing location information for a mobile device such as the police radio described in Smith would not logically lead to the identification of the current user or that user’s identification code. In fact, one would suspect that all of the police officers would load their code books at the same location, the police station. Therefore, geographic information would not lead to a specific user’s codebook in the system of Smith.

C. Claims 21-22

In addition to the reasons for patentability given above in connection with Claim 1, Claims 21 and 22 are separately patentable for the following reasons.

Claims 21 and 22 have the limitation of “determining from the selected record [selected based upon the linkage key] that a second subset of records is required to identify a specific item from the multiple items represented by the selected record” and “obtaining a grammar of potential matching words based on the second subset of records.” One example embodiment of such a system involves the selected record being household information including the names of the residents (or links to those names). (specification, page 37, lines 22-28.) The second subset of records can be the first names of the residents. Having the second subset of records allows for the building of a small grammar (based upon the first names of the residents) with which to identify one of the individuals.

Again, the modification to Smith proposed by the Examiner in view of Kanevsky changes the principal of operation of Smith and makes it unsuited for its intended purpose. Smith is directed to permitting information communication devices to be programmed to respond to the voice commands of several individuals at different times in an efficient and organized manner. Smith, col. 2, lines 11-14. Smith does this by having a central repository of codebooks which are downloaded to handsets in response to the identification code of a user of the handset. Each user has his or her own codebook. The system of claims 21 does not have a codebook for a user. Rather, it uses *a priori* information determined from a linkage key and a second subset of records to make the grammar against which the utterance is compared as small as possible.

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Modifying Smith to determine “from the selected record [Smith does not have a determined record] that a second subset of records is required to identify a specific item . . .” would prevent Smith from using the codebook. Not using the codebook destroys Smith’s entire system.

II. Claims 2-5, 11, 13, 15 and 17 are patentable under 35 U.S.C. § 103(a) over Smith in view of Kanevsky, Shaffer and what is asserted to be “well known prior art.”

The rejection of Claims 2-5, 11, 13, 15 and 17 under Section 103 is improper and should be reversed because the Examiner has failed to provide a prima facie showing of obviousness. In rejecting these claims the Examiner utilized three patent references and vague and unsubstantiated references to unspecified “well known prior art.” Applicant traverses all of the Examiner’s assertions in connection with this “well known prior art.” Applicant further traverses all of the Examiner’s prior art established by “taking official notice”.

Each of these claims is patentable for the reasons set forth above in connection with claim 1. In additions reasons for the separate patentability of the claims is provided below.

A. Claim 2

In addition to the reasons for patentability given above in connection with Claim 1, Claim 2 is separately patentable because the references cannot properly be combined as the basis of a rejection because the proposed modification of Smith renders it unusable for its intended purpose.

In rejecting Claim 2, the Examiner relied upon the grounds of the rejection of Claim 1, plus Smith’s teaching of several methods for generating a codebook request. The Examiner admitted that Smith does not teach automatically capturing information provided without input from the speaker. The Examiner then took official notice “of the fact that the automatic sending of speaker information over a communication channel for the purpose of identifying a speaker was well known in the art (e.g. Caller ID).” The Examiner then summarily concluded that it would have been obvious to modify Smith “such that identifying information is sent when the communication channel is first opened to customize the communication for the particular speaker.”

Applicant agrees that Caller ID is well known. Applicant disagrees with the Examiner as to the teachings can be fairly taken from the Official Notice. The system described in Smith requires that a specific user, not unique to the handset, be identified so that user’s codebook can

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be downloaded to the handset. Caller ID-type information is specific to the handset or telephone number from which a call is generated, not to the caller. Therefore, whatever teachings regarding Caller ID were to be provided by the taking of official notice of the existence of Caller ID in no way teach how to modify Smith such that a handset could automatically transmit information relating to one of multiple users of the handset. Therefore, combining caller ID with Smith results in a system wherein the handset transmits caller ID information (unique to the handset, not the user) which does not identify a user's code book. Because Smith intends that different police officers can use the handset or radio, it is key to the functioning of the system taught by Smith that each user actively identify themselves when they begin using the radio so that their codebook can be downloaded to the handset. Without an identification of the user's code book, the Examiner's proposed modification of Smith renders it unusable for its intended purpose. On the other hand, because Applicant's invention does not require preexisting codebooks for pre-identified users, it can automatically capture information without input from the speaker.

**B. Claims 3 and 15**

In addition to the reasons for patentability set forth in connection with Claim 1 above, Claims 3 and 15 are separately patentable for the following reasons.

Claims 3 and 15 each add the further limitation wherein the identifier related to the speaker comprises spatial or location information, where the spatial or location information can be a specific type of information (e.g., latitude and longitude). With regard to claim 15, the Examiner stated that this concept ("the identifier comprises location information") was "well known in the art, as taught by Kanevsky." The Examiner asserted that Kanevsky "teaches that indicia (including address information) are used to access speaker specific information (col. 3, lns. 20-25, lns. 50-60)." With regard to claim 3 the Examiner asserted that Shaffer "teaches that the linkage key can be used as a linkage mechanism between a telephone number and spatial information." However, the references cannot properly be combined as the basis of a rejection because the proposed modification of Smith renders it unusable for its intended purpose.

Modifying Smith to respond to location information as a way of obtaining a linkage key which is then used to select a subset of records which are then used to obtain a potential grammar destroys the function of Smith. The purpose of Smith is to download the codebook of the current user. Capturing location information does not provide the identity of the current user. Capturing

location information for a mobile device such as the police radio described in Smith would not logically lead to the identification of the current user or that user's identification code. In fact, one would suspect that all of the police officers would load their code books at the same location, the police station. Therefore, geographic information would not identify a specific user as is required in the system of Smith and would thus render the modified Smith unsuitable for its intended purpose.

C. Claims 4 and 5

In addition to the reasons for patentability given above in connection with Claims 1, 2 and 3, Claims 4 and 5 are separately patentable because the cited references do not teach all of the limitations of the claims and also because the references cannot properly be combined.

Claims 4 and 5 include the further limitation of "wherein selecting a subset of records based on the captured identifier comprises selecting a subset of records spatially related to the captured identifier." The claimed combination of elements is not taught by the references. The Examiner admitted that none of the references of record teach or suggest the additional element added by Claims 4 and 5. Nevertheless, the Examiner then went on to state: "However, the Examiner takes official notice of the fact that the use of a personal identifier related to spatial information for the purpose of retrieving spatial information was well known in the art." Applicant respectfully traverses this taking of official notice.

An examiner "may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being 'well known' in the art." MPEP 2144.03 (citations omitted). However, applicant respectfully submits that "use of a personal identifier related to spatial information for the purpose of retrieving spatial information" is not instantly and unquestionably well known.

In addition, the "fact" of which the Examiner took official notice is not the same as the claim limitation. The Examiner seems to be trying to establish that some general principle of relating an identifier to geographic information is well known. The Examiner then uses that "fact" as a justification to modify the references to meet the claim. The Examiner's fact certainly does not meet the claim limitation of "selecting a subset of records spatially related to the captured identifier."

One example of the method of claims 4 and 5 relates to improving speech recognition when the speech is an address. In this example, the identifier can be the latitude and longitude

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coordinates of the caller. That identifier can be used select the names of streets in the immediate vicinity of the latitude and longitude coordinates. Those street names can be used to form a very small grammar based upon those names when the expected response of the caller is a street name. The Examiner's fact certainly does not make such a system obvious.


In addition, the references cannot properly be combined as the basis of a rejection because the proposed modification of Smith renders it unusable for its intended purpose. Modifying Smith to respond to select a subset of records spatially related to the captured identifier destroys the function of Smith. The purpose of Smith is to download the codebook of the current user. Selecting records (equated to codebooks by the Examiner in the rejection of claim 1) spatially related to the captured identifier does not provide the identity of the current user. Smith must have the identity of the current user in order to download that user's code book. Thus such a modification of Smith as proposed by the Examiner would render Smith's system unsuitable for its intended purpose.

**(9) Conclusion**

In view of the foregoing Applicant respectfully submits that the claimed invention is patentable over the references of record. The Examiner's attempt to combine disparate elements and even mere phrases from a group of references to create a hypothetical system is improper and does not rise to the level of a *prima facie* case of obviousness. Additionally, the Examiner has failed to identify or provide teachings in the references for each of the claim elements. Applicant respectfully requests reversal of the Examiner's rejections.

Respectfully submitted,

Dated: 9/30/04

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**APPENDIX – ALL CLAIMS ON APPEAL**

1. (Previously Presented) A method of recognizing speech in a communication network based on captured information related to the speaker, the method comprising:

capturing an identifier related to a speaker provided over a communication network;

determining a linkage key using the identifier;

selecting a subset of records from a plurality of records based on the linkage key;

capturing a vocal expression of the speaker;

obtaining a grammar of potential matching words based upon the subset of records; and

determining information related to the vocal expression based on comparing the grammar with the captured vocal expression.

2. (Original) The method of claim 1, wherein capturing an identifier related to a speaker comprises automatically capturing information provided without input from the speaker.

3. (Original) The method of claim 2, wherein the identifier related to a speaker comprises spatial information.

4. (Original) The method of claim 3, wherein selecting a subset of records based on the captured identifier comprises selecting a subset of records spatially related to the captured identifier.

5. (Original) The method of claim 4, wherein determining the meaning of the vocal expression comprises verifying an identification of the speaker.



6. (Original) The method of claim 1, wherein the capturing step is performed by a first server and the determining step is performed by a second server different from the first server.

7. Cancelled

8. (Previously Presented) The method of claim 1, further comprising determining a second linkage key based on the meaning of the vocal expression.

9. (Original) The method of claim 8, wherein the linkage key is a spatial key that defines a geographic location.

10. (Original) The method of claim 8, further comprising using the linkage key to obtain information related to the speaker.

11. (Original) The method of claim 1, wherein the identifier comprises a telephone number.

12. (Original) The method of claim 1, wherein the identifier comprises address information.

13. (Original) The method of claim 12, wherein the address information includes one or more of a street address, mailing address, zip code, electronic mail address, Internet address, and Web address.

14. (Original) The method of claim 1, wherein the identifier comprises location information.

15. (Original) The method of claim 14, wherein the location information is one of a V&H coordinate pair, latitude/longitude information, street address, and spatial key.

16. (Original) The method of claim 1, wherein the vocal expression is a name.
17. (Original) The method of claim 16, wherein the name includes one or more of a first name, last name, street name, city name, state name, country name.
18. (Original) The method of claim 1, wherein the vocal expression is a number.
19. (Original) The method of claim 18, wherein the number is one of a telephone number, zip code, social security number, or database index.
20. (Previously Presented) The method of claim 1, wherein selecting a subset of records comprises indexing, based on the linkage key, to a record.
21. (Previously Presented) A method of recognizing speech in a communication network, the method comprising:
- receiving a linkage key input parameter value (LKIPV);
  - determining a linkage key using the LKIPV;
  - selecting a record from a first subset of records based upon the linkage key, wherein the record represents multiple items;
  - determining from the selected record that a second subset of records is required to identify a specific item from the multiple items represented by the selected record;
  - obtaining a grammar of potential matching words based on the second subset of records;
  - prompting a speaker to provide information to identify the specific item from the second subset of records;
  - capturing speech that represents the specific item; and
  - comparing the captured speech with the grammar.
22. (Original) The method of claim 21, wherein the first subset of records comprises street address information and the second subset of records comprises secondary address information related to a particular street address.